

REMARKS

Reconsideration and withdrawal of the rejection set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 1-14 remain pending in the application, with Claims 2 and 7-14 being withdrawn from consideration. Of the remaining claims, Claim 1 is the sole independent claim and has been amended herein. Support for the changes to Claim 1 can be found in the specification at least at page 17, lines 2-4 with respect to the discussion of Figures 8 and 10.

Claims 1 and 3-6 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,137,535 (Meyers) in view of U.S. Patent Application Publication No. 2002/0176037 (Li). This rejection is respectfully traversed.

As recited in independent Claim 1, the present invention relates to an image pickup apparatus including a plurality of pixel areas and a plurality of microlenses. The plurality of pixel areas are arranged on a single semiconductor chip to be adjacent to each other through a predetermined space, each of the pixel areas has pixels arranged two-dimensionally and each of the pixels has a photoelectric conversion unit. The plurality of microlenses form light into images. The plurality of microlenses are arranged on the plurality of pixel areas corresponding to each of the pixels and arranged on the predetermined spaces between the plurality of pixel areas. The light incident on the predetermined spaces is focused downward in the predetermined spaces by the microlenses arranged on the predetermined spaces.

Meyers relates to a compact digital camera having a lenslet array. However, as recognized by the Examiner, Meyers does not disclose that the plurality of lenslets or microlenses 12 are arranged on the plurality of pixel areas corresponding to each of the pixels and arranged on the predetermined spaces between the plurality of pixel areas, as is recited in independent Claim 1. Applicants further submit that Meyers does not disclose or suggest that light incident on the predetermined spaces is focused downward in the predetermined spaces by microlenses arranged on the predetermined spaces, as is also recited in independent Claim 1.

Thus, Meyers fails to disclose or suggest important features of the present invention recited in the independent claims.

Li is directed to a method of creating a microlens. Light rays pass through microlenses 304, 308, 312 and are incident upon sensors 320, 324, 328. Since Li does not discuss spaces between the plurality of pixel areas, Li also fails to disclose or suggest that light incident on the predetermined spaces is focused downward in the predetermined spaces by microlenses arranged on the predetermined spaces, as is recited in independent Claim 1. Thus, Li fails to remedy the deficiencies of Meyers noted above with respect to independent Claim 1.

Thus, independent Claim 1 is patentable over the citations of record.

Reconsideration and withdrawal of the § 103 rejection are respectfully requested.

For the foregoing reasons, Applicants respectfully submit that the present invention is patentably defined by independent Claim 1. Dependent Claims 3-6 are also allowable, in their own right, for defining features of the present invention in addition to those recited in their respective independent claims. For similar reasons, withdrawn Claim 2 should be rejoined and also deemed allowable. Individual consideration of the dependent claims is requested.

Applicants submit that the present application is in condition for allowance. Favorable reconsideration, withdrawal of the rejection set forth in the above-noted Office Action, and an early Notice of Allowability are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark A. Williamson", with a long horizontal flourish extending to the right.

Mark A. Williamson
Attorney for Applicants
Registration No. 33,628

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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